

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a sunken section in an insulating film formed on a substrate;

forming a barrier metal film on said insulating film inclusive of said sunken section;

forming a copper-based film over the entire surface so as to fill up said sunken section; and

forming a copper-based metal interconnection, which comprises the step of polishing this substrate surface by the chemical mechanical polishing method, using a polishing slurry containing a silica polishing material, an oxidizing agent, an amino acid, a triazole-based compound and water, wherein a content ratio of said amino acid to said triazole-based compound (amino acid / triazole-based compound (weight ratio)) is 5 to 8, said triazole-based compound is one of 1,2,3-triazole, 1,2,4-triazole and their derivatives.

2. (currently amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a sunken section in an insulating film formed on a substrate;

forming a barrier metal film on said insulating film inclusive of said sunken section;

forming a copper-based film over the entire surface so as to fill up said sunken section; and

polishing this substrate surface by the chemical mechanical polishing method to form a copper-based metal interconnection, wherein said step of polishing comprises the steps of:

a first polishing which is performed until at least a part of said barrier metal film is exposed, while using a polishing slurry containing a silica polishing material, an oxidizing agent, an amino acid, a triazole-based compound and water, wherein a content ratio of said amino acid to said triazole-based compound (amino acid / triazole-based compound (weight ratio)) is 5 to 8, said triazole-based compound is one of 1,2,3-triazole, 1,2,4-triazole and their derivatives; and

a second polishing which is performed until the surface of the insulating film other than said sunken section is exposed.

3. (original) A method of manufacturing a semiconductor device according to Claim 2, wherein said barrier metal film is a tantalum-based metal film.

4. (original) A method of manufacturing a semiconductor device according to Claim 1, wherein said amino acid is glycine.

5. (cancelled)

6. (original) A method of manufacturing a semiconductor device according to Claim 1, wherein a content of said triazole-based compound is not less than 0.05 % by weight but not greater than 0.5 % by weight.

7. (original) A method of manufacturing a semiconductor device according to Claim 1, wherein a pH value of said polishing slurry is in a range of 5 to 7.

8. (original) A method of manufacturing a semiconductor device according to Claim 1, wherein said silica polishing material is colloidal silica.

9. (new) A method of manufacturing a semiconductor device, comprising the steps of:

forming a trench in an insulating film formed on a substrate;

forming a copper-based film over said substrate so as to fill said trench; and

forming a copper-based metal interconnection, which comprises the step of polishing said substrate using a chemical

mechanical polishing method and using a polishing slurry containing: a silica polishing material, an oxidizing agent, an amino acid, a triazole or its derivative and water, wherein a content ratio of said amino acid to said triazole (amino acid / triazole (weight ratio)) is in a range of 5 to 8, said triazole is one of 1,2,3-triazole, 1,2,4-triazole and their derivatives.

10. (new) The method of manufacturing a semiconductor device according to Claim 9, wherein a pH value of said polishing slurry is in a range of 5 to 7.

11. (new) The method of manufacturing a semiconductor device according to Claim 10, wherein a pH value of said polishing slurry is in a range of 6.5 to 7.